

WHAT IS CLAIMED IS

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1. An image compressing apparatus comprising:
a part performing pixel thinning-out operation
and compressing image data; and

10 a part determining a position of pixel to be
thinned out along a first direction depending on the
position thereof along a second direction perpendicular
to the first direction.

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2. The apparatus as claimed in claim 1,
wherein the position of pixel to be thinned out along
the first direction has a predetermined relationship
20 with the position thereof along the second direction.

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3. The apparatus as claimed in claim 1,

wherein the position of pixel to be thinned out comprises a position with respect to each unit area of the relevant image including a predetermined number of pixels.

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4. The apparatus as claimed in claim 3,
10 wherein the positions of pixels to be thinned out along the first direction are determined along the second direction so that the positions of pixels to be thinned out do not align with one another between each pair of unit areas adjacent to one another along the second
15 direction.

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5. An image decompressing apparatus comprising:

a part interpolating thinned-out pixels; and
a part determining pixels to be used for the interpolation,

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wherein said part determining the pixel to be

used for interpolation determines such that pixels nearest to the thinned-out pixels may be selected therefor.

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6. The image decompressing apparatus as claimed in claim 5, wherein said part determining the pixel to be used for interpolation for thinned-out pixels determines such that pixels not included in an original pixel block in which the thinned-out pixels are included may be selected therefor.

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7. The image decompressing apparatus as claimed in claim 5, wherein said part determining the pixel to be used for interpolation determines such that pixels adjacent to an original pixel block via short sides thereof may be selected.

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8. An image decompressing apparatus
comprising:

a part performing interpolation of thinned-out
pixels; and

5 a part determining a method of the
interpolation according to a pixel-number changing rate
of pixel-number changing processing performed after the
interpolation such that a finer interpolation method be
selected as the pixel-number changing rate at which the
10 number of pixels is increased becomes larger.

15 9. The image decompressing apparatus as
claimed in claim 8, wherein a nearest pixel method is
selected when the pixel-number changing rage is less
than a first threshold, a linear interpolation method is
applied when the pixel-number changing rate falls within
20 a range between the first threshold and a second
threshold, and a three-order interpolation method is
applied when the pixel-number changing rate is more than
the second threshold.

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10. An image decompressing apparatus
comprising:

a part interpolating thinned-out pixels from
not-thinned-out pixels; and

5 a part determining an interpolating method
applied,

wherein said part determining an interpolating
method applied applies a less finer interpolation method
for thinned-out pixels located nearer to the not-
10 thinned-out pixels used for the interpolation.

15 11. The image decompressing apparatus as
claimed in claim 10, wherein said part determining an
interpolating method applied selectively applies a
plurality of interpolation methods and determines the
interpolation method to be applied according to the
20 center-to-center pixels distances from the not-thinned-
out pixels.

12. The image decompressing apparatus as
claimed in claim 10, wherein said part determining an
interpolating method applied applies a nearest pixel
method for thinned-out pixels nearest to the not-
5 thinned-out pixels used for interpolation, applies at
least one of a linear interpolation method and a third-
order interpolation method for the other pixels.

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13. An image compressing method comprising
the steps of:

a) performing pixel thinning-out operation and
15 compressing image data; and

b) determining positions of pixels to be
thinned out along a first direction depending on the
positions thereof along a second direction perpendicular
to the first direction.

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14. The method as claimed in claim 13,
25 wherein the positions of pixels to be thinned out

comprise positions with respect to each unit area of the relevant image including a predetermined number of pixels.

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15. The method as claimed in claim 14,
wherein the positions of pixels to be thinned out along
10 the first direction are determined along the second
direction so that the positions of pixels to be thinned
out do not align with one another between each pair of
unit areas adjacent to one another along the second
direction.

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16. An image decompressing method comprising
20 the steps of:

a) interpolating thinned-out pixels; and
b) determining pixels to be used for the
interpolation,

wherein said step b) determines such that
25 pixels nearest to the thinned-out pixels may be applied.

17. The method as claimed in claim 16,
wherein said step b) determines such that pixels not
included in an original pixel block in which thinned-out
pixels are included may be applied for interpolation of
5 the thinned-out pixels.

10 18. The method as claimed in claim 16,
wherein said step b) determines such that pixels
adjacent to an original pixel block in which thinned-out
pixels are included via short sides thereof may be
applied for interpolation of the thinned-out pixels.

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19. An image decompressing method comprising
20 the steps of:

a) performing interpolation of thinned-out
pixels; and

b) determining a method of the interpolation
according to a pixel-number changing rate of pixel-
25 number changing processing performed after the

interpolation such that a finer interpolation method be selected as the pixel-number changing rate at which the number of pixels is increased becomes larger.

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20. The image decompressing method as claimed in claim 19, wherein a nearest pixel method is applied
10 when the pixel-number changing rate is less than a first threshold, a linear interpolation method is applied when the pixel-number changing rate falls within a range between the first threshold and a second threshold, and
15 a three-order interpolation method is applied when the pixel-number changing rate is more than the second threshold.

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21. An image decompressing method comprising the steps of:

a) interpolating thinned-out pixels from not-thinned-out pixels; and

25 b) determining an interpolating method applied,

wherein said step b) applies a less finer interpolation method for thinned-out pixels located nearer to the not-thinned-out pixels used for the interpolation.

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22. The methods as claimed in claim 21,
10 wherein said step b) selectively applies a plurality of interpolation methods and determines the interpolation method to be applied according to the center-to-center pixels distances from the not-thinned-out pixels.

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23. The method as claimed in claim 21,
wherein said step b) applies a nearest pixel method for
20 thinned-out pixels most nearest to the not-thinned-out pixels used for interpolation, but applies at least one of a linear interpolation method and a third-order interpolation method for the other pixels.

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24. A computer-readable information recording medium having a software program recorded therein to be read by a general-purpose computer so as to cause the computer to perform the steps of:

5 a) performing pixel thinning-out operation and compressing image data; and

 b) determining positions of pixels to be thinned out along a first direction depending on the positions thereof along a second direction perpendicular
10 to the first direction.

15 25. The computer-readable information recording medium as claimed in claim 24, wherein the software program is such that the positions of pixels to be thinned out comprise positions with respect to each unit area of the relevant image including a
20 predetermined number of pixels.

25 26. The computer-readable information

recording medium as claimed in claim 24, wherein the software program is such that the positions of pixels to be thinned out along the first direction are determined along the second direction so that the positions of
5 pixels to be thinned out do not align with one another between each pair of unit areas adjacent to one another along the second direction.

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27. A computer-readable information recording medium having a software program recorded therein to be read by a general-purpose computer so as to cause the
15 computer to perform the steps of:

- a) interpolating thinned-out pixels; and
- b) determining pixels to be used for the interpolation,

wherein said step b) determines such that
20 pixels nearest to the thinned-out pixels may be selected.

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28. The computer-readable information

recording medium as claimed in claim 27, wherein the software program is such that said step b) determines such that pixels not included in an original pixel block in which thinned-out pixels are included may be applied
5 for interpolation of the thinned-out pixels.

10 29. The computer-readable information recording medium as claimed in claim 27, wherein the software program is such that said step b) determines such that pixels adjacent to an original pixel block in which thinned-out pixels are included via short sides
15 thereof may be applied for interpolation of the thinned-out pixels.

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30. A computer-readable information recording medium having a software program recorded therein to be read by a general-purpose computer so as to cause the computer to perform the steps of:

25 a) performing interpolation of thinned-out

pixels; and

b) determining a method of the interpolation according to a pixel-number changing rate of pixel-number changing processing performed after the
5 interpolation such that a finer interpolation method be selected as the pixel-number changing rate at which the number of pixels is increased becomes larger.

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31. The computer-readable information recording medium as claimed in claim 30, wherein the software program is such that a nearest pixel method is
15 applied when the pixel-number changing rate is less than a first threshold, a linear interpolation method is applied when the pixel-number changing rate falls within a range between the first threshold and a second threshold, and a three-order interpolation method is
20 applied when the pixel-number changing rate is more than the second threshold.

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32. A computer-readable information recording medium having a software program recorded therein to be read by a general-purpose computer so as to cause the computer to perform the steps of:

- 5 a) interpolating thinned-out pixels from not-thinned-out pixels; and
- b) determining an interpolating method applied, wherein said step b) applies a less finer interpolation method for thinned-out pixels located
- 10 nearer to the not-thinned-out pixels used for the interpolation.

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33. The computer-readable information recording medium as claimed in claim 32, wherein said step b) selectively applies a plurality of interpolation methods and determines the interpolation method to be
- 20 applied according to the center-to-center pixels distances from the not-thinned-out pixels.

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34. The computer-readable information recording medium as claimed in claim 32, wherein the software program is such that said step b) applies a nearest pixel method for thinned-out pixels most nearest
5 to the not-thinned-out pixels used for interpolation, but applies at least one of a linear interpolation method and a third-order interpolation method for the other pixels.